

**TITLE: MULTI-FUNCTIONAL MASSAGER****BACKGROUND OF THE INVENTION****(a) Technical Field of the Invention**

The present invention relates to a massager.

**5 (b) Description of the Prior Art**

Massaging is a process by applying a force to muscle or the external surface of the human body to release stress or tiredness so as to obtain relaxation. Conventional massaging methods include pressing, traction, kneading, beating, etc so as to relax ligament and muscle so as to enhance 10 blood circulation and speed up metabolism.

Conventional devices for massaging only focus on the surface of the massaging surface of the device without much improvement on the control of massaging. In other words, the massager does not take care of the contacting interface between the human body. Although the conventional massagers 15 could relax the muscle but they causes different problems for instance, the positioning of massaging and the angle of application of the device.

Accordingly, it is an object of the present invention to provide multi-functional which mitigates the above drawbacks.

## SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a massager having a massaging head and a camshaft, the camshaft being arch-shaped having two ends connected to the massaging head with

5 massaging function, characterized in that the massaging face at the bottom section of the massaging head is provided with a heating section, rollers, radiation section and low frequency conducting head, the interior of the massaging head has a motor via a reciprocation device is connected to an impaction base seat having protrusions so as to form a vibration beating

10 section, when the motor is in operation, the reciprocation device causes the impaction base seat to vibrate up and down, and the rollers are mounted between the massager head bottom section and the camshaft and the surface of each roller is provided with protrusions or threads which can stimulate skin, the upward bent lower section of the camshaft is the radiation section mounted

15 with electro-thermal wire or tungsten wire which can produce heat or preheat to the massaging region and the appropriate position of the massaging face is provided with the low frequency conducting heads with protrusions made from conductive rubber or other conductive material and the low frequency conducting head provides multi-stage low frequency current by the low

20 frequency circuit board within the massaging head.

Still yet another object of the present invention is to provide a massager, wherein the middle section of the camshaft is a buffer seat made from a compressible material, the buffer seat has spring pivotal axle connecting two camshaft.

5 A further object of the present invention is to provide a massager, wherein the buffer seat is provided with a panel for controlling ON/OFF and massaging selection, and a display for displaying control and selection.

Another object of the present invention is to provide a massager, wherein the end of the massaging head has a grip rim suitable for hand grip or finger  
10 grip.

Still a further object of the present invention is to provide a massager, wherein a separate base seat is provided to the massager which is engageable and separable with the massaging head and the camshaft, and the base seat allows the massager to be reversely placed flat to provide support for  
15 massaging, an insertion plate extended from the camshaft and the massage head allow the base seat to connect with the camshaft, and the corresponding position of the base seat is an insertion slot.

A further object of the present invention is to provide a massager, wherein the material of the roller is a material which mixes with a hyper thermal  
20 material which emits far IR radiation.

Still another object of the present invention is to provide a massager, wherein the low frequency IC board is provided with external wire and socket for externally connected to low frequency plaster connected to the body for low frequency massaging.

5        The foregoing object and summary provide only a brief introduction to the present invention. To fully appreciate these and other objects of the present invention as well as the invention itself, all of which will become apparent to those skilled in the art, the following detailed description of the invention and the claims should be read in conjunction with the accompanying 10 drawings. Throughout the specification and drawings identical reference numerals refer to identical or similar parts.

Many other advantages and features of the present invention will become manifest to those versed in the art upon making reference to the detailed description and the accompanying sheets of drawings in which a preferred 15 structural embodiment incorporating the principles of the present invention is shown by way of illustrative example.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG 1 is a perspective view (top view) of the present invention.

FIG 2 is a perspective view (bottom view) of the present invention.

FIGS. 3 & 3A are sectional views of the present invention.

5 FIGS. 4, 5, 6, 7, 8 and 9 are views showing implementation of the massager of the present invention.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The following descriptions are of exemplary embodiments only, and are not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description provides a convenient 5 illustration for implementing exemplary embodiments of the invention.

Various changes to the described embodiments may be made in the function and arrangement of the elements described without departing from the scope of the invention as set forth in the appended claims.

Referring to FIGS. 1 and 2, there is shown a massager having its both 10 ends connected to massaging head 10 with massaging function and having a middle connection portion as an arch-shaped camshaft 11. The camshaft 11 provides a grip function which also provides a control panel and display panel. The massaging head is functioned as weight balance and extends the massaging function and provides massaging, heating effect.

15 In appearance the massaging face 13 at the bottom section of the massaging head 10 is provided with a vibration beating section 20, rollers 30, thermal radiation section 40, low frequency conduction head 50 such that the skin contacting with the massaging face 13 will subject to vibration beating, pressing and rolling stimulation, heat stimulation and low current traction 20 stimulation. These stimulations release muscle stress, massaging of skin,

blood circulation and releases tiredness, promotes blood circulation and enhances metabolism.

As shown in FIG 3 and FIG 3A, the middle section of the camshaft 11 is a buffer seat 12 made from a compressible material. The upper end of the 5 camshaft 11 is a control panel 121 and a display panel 122 for controlling ON/OFF, selectors (massagings) (speed of vibration, temperature, low frequency, time duration etc). The display panel displays the control status and the selection status. The buffer seat 12 has spring pivotal shaft connected to two camshafts 11 such that a plurality of angle can be rotated. The action 10 of the pivotal shaft 111 allows the pivotal shaft to maintain at a specific angle (to maintain two massaging faces on a flat surface). The elastic effect of the pivotal shaft 111 and the buffer seat 12 can be connected such that there is elastic, shock absorbing and compressible between two massaging heads 10.

The end of the massaging head 10 is a grip section which suitable for the 15 gripping of fingers and hand. As shown in the figure, a grip rim 101 is provided. The base seat 60 can be connected with the massaging head 10 and the camshaft 11 and has support 61 so that the massager can be reversely placed on a flat surface to provide different massaging function. The engagement of the base seat 60 with the massaging head 10 and the camshaft 20 11 depends on the extended insertion plate 112 extended from the top section

of the camshaft 11 and the massaging head 10, and the relative position of the base seat is provided with an insertion slot 62. When the insertion slot 62 and the insertion plate 112 are connected, the base seat 60 can be positioned on a flat surface and can support the entire massager.

5 Referring to FIG 3, the entire massager has a massaging head 10 included a motor 21. The motor 21 via the use of a reciprocation device 22 is connected to an impaction base seat 23 protruded from the massaging surface 13, and is formed into a vibration beating section 20. When a motor 21 is in operation, the reciprocation device 22 causes the impaction base seat 23 to 10 generate vibration beating. A plurality of driven rollers 31 are formed between the bottom section of the massaging head 10 and the camshaft 11. The surface of each roller 31 is provided with protrusions or threads 32, forming into rollers 30. The bottom section of the camshaft 11 has a thermal radiation section 40 made from electro-thermal wire or tungsten which can 15 produce heat or provide pre-heating. The appropriate position of the massaging face 13 is low frequency conduction head 10 made from conductive rubber or other conductive material. The low frequency IC board 51 within the massaging head 10 provides multi-stages low frequency current.

The material of rollers 31 can mix with a material when encounters with 20 heat, a far IR radiation is emitted such that the roller 31 provides a far IR

radiation function.

The low frequency IC board 51 is provided with externally connected wire and insertion holes which can connect to plaster for massaging at other parts of the body.

5 FIG 4 shows application to massage the shoulder. The user holds the grip section and the massaging face 13 is closely contact with the shoulder to proceed with the massaging.

FIG 5 shows application on waist. The user leans against the massager with the waist contacting with the massaging face 13 to proceed with the  
10 massaging.

FIG 6 shows application of massaging to the side of the waist. The user holds the camshaft 11 and the massaging face 11 contacts with the side of the waist to proceed with the massaging.

FIG 7 shows application of the massager to the lower abdomen. The  
15 user holds the camshaft 11 so that the massaging face 13 contacts with the lower abdomen to proceed with massaging.

FIG 8 shows application of the massager to the thigh. The user holds the camshaft 11 and the massaging face 13 contacts with the thigh to proceed with massaging.

20 FIG 9 shows application of the massager to the sole. The massager is

reversed at the base seat 60 to place on the ground. The user places the sole on the massaging face 13 to proceed with the massaging.

The position of the radiation 40 provides heating effect and lighting.

If the above functions are operated simultaneously, the muscle of the  
5 body is vibrated and beat so that the muscle is stimulated and the protrusion  
roller 30 will stimulate the blood point. Therefore, the massaging skin is  
stress released and relax.

The camshaft 11 having two massaging heads 10 can be held with a  
single hand to apply onto various part of the body. This will eliminate the  
10 weight burden at a certain position.

The inner surface of the camshaft 11 has a plurality of rollers 31 which  
can be used to massage shoulder, arm, leg, ankle, etc.

It will be understood that each of the elements described above, or two or  
more together may also find a useful application in other types of methods  
15 differing from the type described above.

While certain novel features of this invention have been shown and  
described and are pointed out in the annexed claim, it is not intended to be  
limited to the details above, since it will be understood that various omissions,  
modifications, substitutions and changes in the forms and details of the device  
20 illustrated and in its operation can be made by those skilled in the art without

departing in any way from the spirit of the present invention.